



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 18 1994

Marvin H. Alphin
Abbott Laboratories
1401 Sheridan Road
North Chicago, Illinois 60064-4000

Dear Mr. Alphin:

Subject: Label Amendments - Labels dated 5/5/94
PROGIBB 4% Plant Growth Regulator Solution
EPA Reg. No. 275-61
PROGIBB PLUS 2X Plant Growth Regulator
EPA Reg. No. 275-62
Your letters and applications dated 5/5/94

The labeling referred to above, submitted in connection with registrations under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comments listed below.

1. Under the Precautionary Statements, remove the parenthesis from the heading Hazards to Humans and Domestic Animals.
2. Revise the Environmental Hazard Statements to read, "Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by disposal of equipment washwaters."
3. Add a referral statement to the front panel, "See side panel for additional precautionary statements."
4. Regarding EPA Reg. No. 275-61:
 - a. We note that the use directions for prunes specify "Italian Prune", while the ProGibb Plus 2X label cites "Prune" only. Please clarify.

b. Insert the word "resistant" after "chemical" under the Personal Protective Equipment.

A stamped copy of the labels are enclosed for your records. Submit one (1) copy of the final printed labels prior to releasing the products for shipment.

Sincerely,

CS

Cynthia Giles-Parker
Product Manager (22)
Fungicide-Herbicide Branch
Registration Division (7505C)

Enclosure

Jackel

*Review 275-61
Label*

Plant Growth Regulator

PROGIBB® 4%

SOLUTION



Active Ingredient: Gibberellic Acid.....	4.0% w/w
Inert Ingredients.....	96.0% w/w
Total.....	100.0% w/w

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

*Clarice check
format on label
referral statement
etc.*

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES - Flush with plenty of water. Call a physician.

IF SWALLOWED - Drink promptly a large quantity of milk, egg whites, gelatin solution or if these are not available, drink large quantities of water. Avoid alcohol.

IF INHALED - Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

IF ON SKIN - Wash with plenty of soap and water. Get medical attention.

ACCEPTED
with COMMENTS
In EPA Letter Dated:

OCT 18 1994

EPA Reg. No. 275-61
EPA Est. No. 44616-MO-1

ProGibb 4%.mod
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Under the Federal Insecticide, Fungicide, and Rodenticide Act, the registration of this pesticide is hereby suspended.

275-61

✓

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)

Causes substantial but temporary eye injury. Harmful if inhaled or absorbed through skin. Do not get in eyes or on clothing. Avoid breathing vapor or spray mist, and avoid contact with skin. Wear goggles or safety glasses. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

delete -
relocate
see
WPS
letter
move to
correct
location

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- long sleeved shirt
 - long pants
 - chemical gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, and viton
 - shoes plus socks
 - protective eyewear
- resistant*

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If there is no instruction for washables, use detergent and hot water. Keep and wash PPE items separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

← update ✓

ENVIRONMENTAL HAZARDS

Do not apply directly to water or wetlands. Do not contaminate water when disposing of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

FLAMMABLE! Keep away from heat and open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. Do not apply this product through any type of irrigation system.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- coveralls
- chemical resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, and viton
- shoes plus socks
- protective eyewear



NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter without appropriate protective clothing until sprays have dried.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

STORAGE

Keep containers tightly closed when not in use. Keep away from heat and open flame.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

Do not reuse empty containers. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

GENERAL DIRECTIONS FOR USE

Use only as directed. The label should be read thoroughly and understood before making applications. Keep out of reach of children.

Application recommendations:

ProGibb contains gibberellic acid which is an extremely potent plant growth regulator; when applying plant growth regulators, deviations from the label directions in the rates, timings, water volumes, or the adoption of untested spray mixes, may result in undesirable effects. Always consult the Abbott Laboratories agricultural specialist in your area for the spray regimen best suited to your conditions.

--Do not apply to plants under pest, nutritional, or water stress.

--When a range of rates is indicated, use the concentration and spray volume recommended locally by the Abbott Laboratories agricultural specialist.

--For optimum effectiveness, thorough spray coverage must be achieved; all parts of the plant or crop must receive the spray or desired results will not occur. Prepare solution concentrations by mixing the required amount of product with water in a clean, empty spray tank. Discard any unused spray material at the end of each day following local, state or federal law.

--For best results, the water pH should be around neutral, and always below 8.5.

--ProGibb applications made under slow drying conditions (cool to warm temperatures, medium to high relative humidity, and no wind) will increase absorption by the plant, thus optimizing effectiveness. Night-time applications are encouraged when day-time conditions are not conducive to slow drying conditions.

--Product persistence: ProGibb should be re-applied if significant rain occurs within 2 hours of application.

--Compatibility: The ProGibb spray guidelines refer to the use of the product alone. The use of surfactants and other additives has been reported to be beneficial. However, data concerning the compatibility of ProGibb with other agricultural compounds, except DiPel 2X or XenTari (registered products of Abbott Laboratories), are not available. Abbott Laboratories does not assume responsibility for unexpected results due to the tank mixing of ProGibb with other products.

--DO NOT apply using ULV application methods. For aerial applications spray volumes must be greater than 2 gallons per acre (10 gallons per acre for tree crops).

ProGibb can be applied up to 7 days before harvest.

ProGibb 4% is a liquid and each fluid ounce contains approximately one (1) gram of active ingredient.



SPRAY GUIDELINES FOR CROP CATEGORIES

GRAPE

For all grapes, application is recommended by ground sprayer. Apply as a concentrate or dilute spray in sufficient water volume to insure thorough wetting. It is important to wet all flower clusters or berries thoroughly. For specific spray rates and timings, by variety, see accompanying tables. Do not exceed maximum rates.

SEEDLESS GRAPE

Do not apply more than 208 grams a.i./acre, per growing season, for all uses.

- For cluster elongation and looser cluster forms ("Stretch"). To reduce costs of thinning, allow better air circulation to aid in the control of bunch rot, and increase light penetration to aid in sugar development.

Guide: Apply one to two applications before bloom when flower clusters are 2-to-5 inches long.

- For decreased berry set ("Thinning"), reduced hand-thinning costs, and hastened maturity.

Guide: Apply one to three applications during bloom. When the bloom period is extended, subsequent sprays should be made 1-to-7 days after the first application.

NOTE: Higher amounts or multiple applications may cause an excess of shot berries or overthinning, especially in young vines or vines with high vigor.

- For larger berries ("Sizing") and larger clusters when used in conjunction with established girdling and thinning practices.

Guide: Apply one to three applications beginning when the average berry size reaches "target" diameter (See Table 1). Timing of the subsequent sprays will be dictated by experience in the vineyard and temperatures occurring between sprays. Potential effect will be reduced if the final spray occurs more than two weeks after the first application.

SEEDLESS GRAPE
(continued)

TABLE 1

**APPLICATION RATES (GRAMS A.I./ACRE) FOR SEEDLESS GRAPE,
INCLUDING TARGET BERRY DIAMETERS**

Seedless Grape	Stretch	Thinning	Sizing	
	grams a.i./acre	grams a.i./acre	"Target" Diameter	grams a.i./acre
Pedette	8-to-16	*	4-to-5 mm	32-to-80 <i>el</i>
Flame	8-to-16	3-to-16	6-to-9 mm	20-to-80 <i>48</i>
Thompson	8-to-16	8-to-16	3-to-5 mm	32-to-80
Raisin	8-to-16	3-to-12	4-to-5 mm	4-to-12
All Other Seedless Grape	*	*	12-to-14 mm	8-to-48 <i>el</i>

*No recommendations available for this variety/timing at this time.

NOTE: Do not apply more than 208 grams a.i./acre per growing season for all uses.

SEEDED GRAPE

Emperor Grape

For reducing berry shrivel. This use can also increase berry size.

Guide: Apply 20 grams a.i./acre as one application approximately two weeks after completion of berry shatter. This timing should correspond to a period when the predominant berry diameter ranges from 10-to-15 mm.

SEEDED GRAPE
(continued)

Black Corinth (Zante Currant) Grape

For improving berry size.

Guide: Apply 1-to-8 grams a.i./acre as one application 3-to-5 days after full bloom, but before shatter begins.

Wine Varieties

For looser cluster to reduce incidence of bunch rot.

Guide: Apply one spray when shoots are 15-to-20 inches long. Use 100 gallons of water per acre. Clusters should average 3-to-4 inches in length and may range from 2-to-5 inches in length. Concentrations for registered varieties are shown below (See Table 2).

NOTE: Do not make applications less than four weeks before bloom. IT IS IMPORTANT that the proper rate be used on each variety; if late applications are made or if indicated rates are exceeded, reduction in yield may occur during the year of application and subsequent years.

TABLE 2

TABLE FOR APPLICATION RATES (GRAMS A.I./ACRE) AND RECOMMENDED WATER VOLUME ON SEEDED WINE VARIETIES.

Variety	PPM	Grams a.i./acre	Gallons/acre
Palomino Sauvignon Blanc Tinta Madeira	1-to-2.5	0.4-to-1	100
Aleatico Carignane Chardonnay Chenin Blanc French Colombard Pinot Noir Valdepenas	2.5-to-5	1-to-2	100
Barbera Petite Sirah Zinfandel	5-to-10	2-to-4	100
Green Hungarian	10-to-20	4-to-8	100
Grenache Alicante	20	8	100
Salvadore	20-to-40	8-to-16	100

CITRUS

For all citrus, apply in sprays of sufficient water volumes to insure thorough fruit wetting. Application to trees of low vigor or under stress, (pest, nutritional, or water, etc) may cause severe leaf and/or fruit drop. In most cases some drop of older mature leaves will occur after application. Do not apply in white wash sprays in which lime or other caustic material has produced a high pH in the spray tank.

NAVEL ORANGE

To delay rind aging, reduce physiological disorders (e.g., rind staining, water spotting, sticky or tacky surface, puffy rind and rupture under pressure), and to produce a more orderly harvesting pattern. The delay in rind aging is greatest when an early spray is applied. This spray timing produces the firmest rind possible.

NOTE:

Slower color development should be expected in the target crop. Increased re-greening of mature fruit may occur. After marketable color is achieved, treatment effects may be reduced the longer treated fruit remain on the tree.

LEMON/LIME

*not limes
limes ok at 0.15 ppm*

To decrease the amount of small ripe fruit and to produce a more desirable production pattern relative to market demand.

Guide: Apply one spray when target crop is 1/2-to-3/4 full size, but still green. Use 10-to-32 grams a.i./acre as a concentrate or dilute spray in sufficient water volume to insure thorough wetting.

*less than
20 gm AI*

When applied two years in a row, an even larger difference in harvest pattern and maturity occurs.

TANGERINE HYBRIDS

To delay disorders associated with rind aging, puffiness, and softening, and to increase peel strength, of tangerine hybrids such as Orlando, Robinson, Minneola and Sunburst.

Guide: Apply 20-to-40 grams a.i./acre approximately two weeks prior to color break. Apply as a dilute spray in sufficient water volume to insure thorough wetting.

NOTE:

Do not apply if early harvest is planned. Do not apply after coloring as preharvest rind staining may occur. Application during coloring may cause variation in rind color development.

(All States except California)

To increase fruit set and yields on tangerine hybrids with pollination problems such as the Orlando, Robinson, Minneola and Sunburst.

Guide: Apply 8-to-30 grams a.i./acre during full bloom. Apply as a dilute spray in sufficient water volume to insure thorough wetting.

NOTE:

Fruit sizes may be reduced and color development slightly retarded. A slight increase in mature leaf drop may occur in trees under stress.

GRAPEFRUIT
(All states except California)

012

To delay disorders associated with rind aging (e.g., puffiness, softening, and orange coloration), to prevent preharvest drop of mature fruit, to increase peel strength and reduce water loss during storage, and to produce a more orderly harvesting pattern. The delay in rind aging is greatest when an early spray is applied before color change. This spray timing produces the firmest rind possible.

Guide: Apply 16-to-48 grams a.i./acre in a minimum of 250 gallons per acre.

EARLY SPRAY: Apply one spray approximately two weeks prior to color break, which normally occurs August through September.

OR

LATE SPRAY: Apply one spray after marketable color has developed which is normally from October through December.
This late application may cause fruit re-greening.

NOTE:

Do not apply the early spray to groves that may be harvested early as fruit coloring will be delayed. It is advisable to spot pick heavy crops to aid early marketing and to avoid reduction of yields, which generally follow late held crops. Applications made to fully colored fruit will begin to re-green if allowed to remain on the tree for extended periods.

Application made after December, or when trees begin to break dormancy, may adversely affect new crop. Do not use concentrate sprays. Results may vary from season to season depending on environmental conditions.

STAR RUBY VARIETY
(All States except California)

02

To reduce early-season small fruit drop of Star Ruby Variety thereby increasing yields.

Guide: Apply a single spray during the bloom period. Use 25 grams a.i./acre in a minimum of 250 gallons of water per acre.

NOTE: Results may vary from season to season depending on environmental conditions. Maintain a well-balanced fertilization and watering program.



FRUIT CROPS

BLUEBERRY (All States except California)

OK

To improve fruit set. For natural fruit set problems due to insufficient natural honeybee pollination, adverse weather conditions, or physiological factors.

Highbush blueberry - (for varieties such as Coville, Jersey, Stanley, Earliblue, Weymouth, Walcott, Berkeley, Blueray, Bluecrop, 1316A, Concord, and others)

Guide: Make one or two applications at 40 grams a.i./acre in 100 gallons of water; the single application should be made at full bloom (when 75% of the flowers are fully open). When 2 applications are made, spray the first one at full bloom, and the second one within 10-14 days of the first one. For Weymouth, application can be delayed up to two weeks after bloom to increase size of "shot" berries.

Rabbiteye blueberry - (for varieties such as Aliceblue, Beckyblue, Bonita, Brightwell, Climax, Delite, Tiftblue, Woodward, and others).

Guide: Make a single application of 40 grams a.i./acre in 100-to-300 gallons per acre when most of the flowers are elongated but not yet open (bloom Stage 5).

OR

MULTIPLE APPLICATIONS: Make two to four applications every 10-to-14 days starting at bloom Stage 5. Spray 40 grams a.i./acre in 50-to-300 gallons per application.

SWEET CHERRY

To produce larger, brighter colored, firmer fruit.

Guide: Apply a single spray when the fruit is light green to straw colored. Use 16-to-48 grams a.i./acre in sufficient water volume to insure thorough wetting.

NOTE: Color development and harvest may be slightly delayed.

RED TART CHERRY
(All states except California)

To maintain and extend high fruiting capacity of bearing tart cherry trees and reduce the occurrence of "blind" nodes. Treatment will cause bud differentiation, which is apparent the year after application. Therefore, changes in shoot, spur, and flower production will not be evident until two or three years after program initiation. Applications must be applied annually to insure vegetative development and subsequent yield improvement year after year.

Guide: Apply one spray 14-to-28 days after bloom. Optimum timing is defined as that stage when 3-to-5 terminal leaves have fully expanded, or, at least 1-to-3 inches of terminal shoot extension has occurred. Use 4-to-18 grams a.i./acre, depending on tree age and vigor (See Table 3). Apply as a concentrate or dilute spray in sufficient water volume to insure thorough wetting.

TABLE 3

**RECOMMENDED APPLICATION RATES (GRAMS A.I./ACRE)
FOR TART CHERRY TREES BY AGE**

Tree Age (years)	Rate (grams a.i./acre)
6-to-10	4-to-6
11-to-15	8-to-10
16-to-20	10-to-14
20 + years	14-to-18

*where's
high top
spray control?*

initial spray control

NOTE: Rates are based on expected normal tree vigor at various ages. Adjust rate according to tree vigor. If trees are vigorous, use lowest recommended rates. Lowest rates should also be used on trees that have been heavily pruned or hedged. Use higher rates for trees low in vigor and weak in shoot and spur production. Excessive application rates will increase vegetative growth at the expense of fruit production the following year.

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RED TART CHERRY
(continued)

Applications will not improve growth of trees under stress conditions, such as nutritional, moisture, or pest. Best results will be obtained when combined with good cultural practices.

Italian?

ITALIAN PRUNE
(All states except California)

0.15 ppm Stonefruit

To reduce internal browning, improve quality, and increase size.

Guide: Apply 4-to-5 weeks before expected harvest. Apply a single spray at 16-to-48 grams a.i./acre in sufficient water volume to insure thorough wetting.

NOTE: Color development and harvest may be slightly delayed. May reduce bloom the following season.

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NON-BEARING FRUIT TREES

To reduce flowering and fruiting in young tart and sweet cherry, and peach trees in order to minimize the competitive effect of early fruiting on tree development.

NOTE: DO NOT SPRAY TREES IN THE FIRST YEAR. Treat in the second season for reduction of flowering in the third season, and again in the third season if flower reduction and fruiting is desired in the fourth season. Treat only trees that are in good physiological condition. Discontinue treatment the year before desired harvest.

YOUNG TART AND SWEET CHERRY (All states except California)

Guide: Apply a single spray of 20-to-40 grams a.i./acre, 2-to-4 weeks after bloom. Apply a foliar spray of 25-to-50 gallons per acre, assuming a tree density of 100 trees per acre equivalent. Under conditions of low vigor, two applications are recommended. If two spray applications are made, allow at least a seven-day interval between sprays.

PEACH *Non-bearing?*

(All states except California)

Guide: Apply a single spray in the fall after flower buds have been initiated. This corresponds to the period immediately before and at the onset of early leaf drop, typically late September to early October. Apply at the rate of 40-to-80 grams a.i./acre in 50 gallons of water per acre. Best results are obtained when applied with a handgun and tree canopy is wetted thoroughly to the point of run-off.



OTHER FRUIT

OLYMPUS STRAWBERRY (All states except California)

OK

To increase runner production of mother plants of the Olympus cultivar.

Guide: Apply a single spray of 20 grams a.i./acre to mother plants 10-to-30 days after planting. At the time of spraying, plants should have 1-to-6 leaves. Apply 100 gallons/acre to thoroughly wet new foliage to the point of run-off.

NOTE: Not for use on fruiting plants. Treatments may not be effective on plantings set out after mid-May.



VEGETABLE CROPS

RHUBARB

To break dormancy on plants receiving insufficient chilling and to increase marketable yield of forced rhubarb.

Guide: Make a single application of 2 fluid ounces (60 ml) of a solution containing 20 grams a.i. in 10 gallons of water to each cleaned crown, when the rest period is not completely broken. When the rest period is broken by cold weather, apply 2 fluid ounces (60 ml) of a solution containing 10 grams a.i. in 10 gallons of water to each cleaned crown.

NOTE: Keep forcing house temperatures at 40.F-to-50.F for 24 hours after application. If house is warmer than 50.F, the crowns should be covered with plastic. Temperatures in the forcing house above 50.F may lower yields and cause poor stalk color.

ARTICHOKE

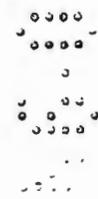
To accelerate maturity and shift harvest to an earlier date.

Guide: For perennials, apply one to three applications at bud initiation stage. For annuals, apply one to four applications at 2 week intervals, beginning at the fourth true leaf. Use 10-to-20 grams a.i./acre per application in sufficient water volume to insure thorough wetting of the entire plant (leaves, stems and buds).

CELERY

To increase plant height and yield and overcome stress due to cold weather conditions or saline soils, and to obtain earlier maturity.

Guide: Apply a single spray one to four weeks prior to harvest at a rate of 2.5-to-10 grams a.i./acre. Use 25-to-50 gallons per acre by ground application or 5-to-10 gallons per acre for aerial application. Use lower concentrations applying 3-to-4 weeks before harvest and higher concentrations within 1-to-2 weeks before harvest.



*Do not apply by air in California.

NOTE: Do not apply earlier than 4 weeks before harvest as bolting (seed stalk formation) may occur.

LETTUCE FOR SEED *ok*

- To obtain uniform bolting and increase seed production:

Guide: Apply one to four applications at 2 week intervals, beginning at the fourth true leaf. Use 1-to-4 grams a.i./acre per application in sufficient water volume to insure thorough wetting.

PEPPER *ok*
(All states except California)

- To Promote Plant Growth

Guide: Apply one to two sprays of 1-to-3 grams a.i./acre in 25-to-50 gallons per acre at two week intervals. Begin sprays 2 weeks after transplanting.

NOTE: This use is recommended for areas with short growing seasons, or when low temperatures slow plant growth.

- To Increase Fruit Set and Promote Fruit Growth

Guide: Apply one to two sprays of 1-to-3 grams a.i./acre in 25-to-50 gallons per acre at weekly intervals during the flowering period. The high rate is recommended for areas and/or varieties with pollination and/or fruit set problems.

- To Increase Fruit Size

Guide: Apply 1-to-3 grams a.i./acre in 25-to-50 gallons per acre at the beginning of the picking period. The high rate is recommended for plants with heavy fruit loads.

MELON AND CUCUMBER
(All states except California)

ok

To stimulate fruit set during periods of cool temperatures.

Guide: Use 2 grams a.i./acre in sufficient water volume for thorough coverage of exposed foliage. Make one application prior to bloom followed by two additional applications at intervals of 10-to-14 days on cantaloupes and watermelons. On cucumbers, up to four applications may be required.

For maximum benefits, vines must be in good condition, except for reduced rate of growth due to cool temperatures.

SEED POTATO

To stimulate uniform sprouting to aid in maximum production, more uniform development, fewer late maturing plants, and to break dormancy of newly harvested potatoes that have not had a full rest period.

Guide: Dip whole or cut seed pieces in a solution containing 0.2-to-0.4 grams a.i. in 100 gallons of water prior to planting.

NOTE: Under high soil temperatures use the minimum concentration for dormant seed. Do not treat rested seed.

SPINACH
(All states except California)

ok

To facilitate harvest, increase yield and improve quality of fall and over-winter spinach.

Guide: Apply a single spray 10-to-18 days before each anticipated harvest on fall or over-winter spinach, ideally when daytime temperatures are 40.F-to-70.F and during early morning hours when dew is present on crop. Apply 6-to-8 grams a.i./acre in 10-to-50 gallons per acre by ground sprayer or in a minimum of 5-to-10 gallons per acre by air. When applied to promote growth of second cutting, wait until some regrowth has started before spraying. Maximum

benefit is obtained when below normal temperatures predominate following application and growth would be otherwise slowed in untreated spinach.

NOTE:

Since the promotion of bolting may occur, do not apply after the mid-winter period or if temperatures may be expected to exceed 75.F within several days of application. Do not apply on spring plantings.



FLORICULTURE CROPS

POMPOM CHRYSANTHEMUM (All States except California)

For elongating peduncles on Pompom chrysanthemum.

Guide: Apply a single spray 4-to-5 weeks after initiation of short day conditions.

Use 0.5-to-1 grams a.i. in 12 gallons of water for application to 1,000 sq. ft. of bed. Apply with overhead nozzles directing the spray to the flower buds.

NOTE: Overuse or incorrect timing may cause long, spindly, and weak stems.

STATICE (All States except California)

To promote earlier flowering and to increase flower yield.

Guide: Apply a single drench spray when plants are more than 10 inches in diameter (approximately 90-to-110 days after normal seeding time). Use 40-to-50 grams a.i. in 25 gallons to provide 10 ml solution (4-5 mg a.i.) per plant.

NOTE: Do not exceed specified rates. Do not apply repeated sprays. Accelerated flowering is influenced by extended photoperiod, adequate nutrition, and reduced night temperatures. This treatment reduces the cold requirement and/or the long photoperiod.

AZALEA (All States except California)

The following recommendations are based on results with common azalea cultivars. Differences in responsiveness may vary from one cultivar to another, or from one set of growing conditions to another, or from one cultural management system to another. Therefore, prior to widespread usage, we recommend testing a small number of plants

from each cultivar under a specific set of growing and cultural management conditions to verify desired efficacy.

Spray plants to run-off. The actual spray application rate will vary, depending on plant size and spacing density. Thorough spray coverage is essential for uniform flowering. **Do not apply after flower buds show color.**

NOTE: A representative spray application rate which has been proven effective for 6 inch potted plants spaced at a density of 1 per square foot is 1 gallon/200 square feet.

- As a partial replacement of cold treatment to break flower dormancy.

Guide: Apply three sprays of 250-to-500 ppm a.i. (See Table 4) at weekly intervals after 3-to-4 weeks of chilling.

NOTE: Plants should be at Stage 5 of floral development (i.e., style elongated and open) when treatment is initiated. A representative spray schedule would consist of applications made at 3, 10, and 17 days after four weeks of chilling. Flowers will not develop properly if applied prior to Stage 5.

NOTE: On some cultivars (e.g., 'Gloria', 'Prize', and 'Redwing'), a single spray of 1000 ppm a.i. after 3-to-4 weeks of chilling has proven effective in breaking dormancy.

- As a complete substitution of cold treatment to break flower dormancy.

Guide: Apply four to six sprays of 1000 ppm a.i. (See Table 4) at weekly intervals. Plants must be at Stage 5 of floral development (style elongated and open) before first spray is applied.

NOTE: Flowers will not develop properly if applied prior to Stage 5 of floral development.

- To inhibit flower bud initiation during vegetative growth.

Guide: After each pinch, apply two to three sprays of 100-to-750 ppm a.i. (See Table 4) at intervals of 2-to-3 weeks.

Table 4 can be used to convert spray concentrations (ppm of a.i.), to actual number of fluid ounces of ProGibb 4% needed for one gallon of spray solution.

ProGibb 4%.mod

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rev. 05-05-94

TABLE 4

**APPLICATION RATES AND RECOMMENDED WATER VOLUME
FOR AZALEA**

Desired ppm Value	grams a.i./ gallon*	grams a.i./ acre**	Fluid ounces of ProGibb 4%/acre**
100	0.38	87	87
250	0.95	207	207
500	1.90	414	414
750	2.85	610	610
1000	3.80	828	828

*Note: ProGibb 4% is a liquid. Each fluid ounce contains approximately one (1) gram of active ingredient.

**Based on a spray application rate of 1 gallon/200 square feet.



GOLF/TURF

OK

BERMUDAGRASS GOLF TURF (All States except California)

- To initiate or maintain growth and prevent color change during periods of cold stress and light frosts on golf course Bermudagrass (e.g., Tifdwarf, Tifgreen, etc.).

Guide: Apply 10 grams a.i./acre weekly or 25 grams a.i./acre biweekly in 25-to-100 gallons/acre.

NOTE: Do not exceed specified rates. Do not apply during extended warm period where night temperatures exceed 65.F.

- To maintain or enhance regrowth during summer months.

Guide: Apply 1-to-3 grams a.i./acre weekly in 25-to-100 gallons/acre.

NOTE: Maintain adequate moisture and proper fertilization programs recommended in local area. Discontinue treatments if thinning is observed. Do not apply the high rate more frequently than every two weeks. More frequent mowing may be necessary. Do not use on dormant turf.

OTHER CROPS

HOP (Northwestern U.S. only)

OK

For seeded and seedless Fuggle hop and similar varieties adapted to the Northwestern states.

- To increase yield and fruit set.

Guide: Apply a single spray when vine growth is 5-to-8 feet in length. Use 4-to-6 grams a.i./acre in 100-to-150 gallons/acre.

COTTON (All states except California)

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- To promote early plant growth, increase early seedling vigor, and to overcome stress caused by cool weather.

Guide: Apply 1-to-6 grams a.i./acre via in-furrow application to seed, or as a foliar application from the cotyledon stage through the 5 leaf stage. Repeat applications as needed every 5-to-7 days, to a maximum of 4 applications. Use 5-to-40 gallons of water by ground application or 3-to-10 gallons by air.

NOTE: Use higher rates when temperatures will likely average 75.F or less during the 14 days following the applications. Do not tank mix with herbicides. Do not apply more often than necessary to achieve the desired height, as overdosage may result in excessive growth.

CONVERSION TABLE

GRAMS OF GIBBERELIC ACID PER ACRE Desired Gibberellic Acid Concentration (Grams Active Ingredient per acre) in Finished Spray	TO	AMOUNT OF PROGIBB FORMULATION PER ACRE ProGibb 4% Liquid Contains approximately 1.0 Gram Active Ingredient/ Fluid Ounce of Formulated Product
0.5		0.5 oz.
1.0		1 oz.
2.0		2 oz.
4.0		4 oz.
5.0		5 oz.
8.0		8 oz.
10.0		10 oz.
12.0		12 oz.
16.0		16 oz.
20.0		20 oz.
25.0		25 oz.
32.0		32 oz.
40.0		40 oz.
48.0		48 oz.
50.0		50 oz.



NOTICE TO USER:

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

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